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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/091,510	12/17/1998	CHRISTOPHER TOWNSEND	2365-104	5025

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EXAMINER

BROWN, RUEBEN M

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/091,510

Applicant(s)

TOWNSEND ET AL.

Examiner

Reuben M. Brown

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-5,7,8,10-33,35-45,59,60,65-68 and 70-85 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7,8,10-33,35-45,59,60,65-68 and 70-85 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-5, 7-8, 10-22, 28-33, 35-45, 59-60, 65-68, 70-76 & 80-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams, (U.S. Pat # 5,541,662), in view of Handelman, (U.S. Pat # 5,414,773) & Volk, (U.S. Pat # 5,687,331).

Considering claims 1, 28 & 70, the claimed receiver or method for receiving broadcast digital TV signals representing video and information data, the receiver comprising:

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‘ a decoder for separating the video data and the information data’, is met by data selector 76 that extracts video data and decodes the associated data from the broadcast stream, col. 4, lines 35-65; col. 5, lines 1-20; col. 6, lines 6-58 & Fig. 3.

The claimed ‘information data’ corresponds with the associated data discussed throughout Adams. The associated data includes commands that control the content and location of placement of graphical interactive images/icons along with video images, see col. 5, lines 16-22 & col. 7, lines 32-67. It is noted that Adams discloses that the video, audio & associated may be distributed as a packetized digital stream using satellite, CATV or broadcast media.

‘store for storing the received information data’ is broad enough to read on the associated queue 74 that stores the associated data, before being retrieved by the processor 52.

‘a processor responsive to the stored information data to output for display an interactive image derived from the video data and information data’, is met by the operation of the processor 52, which reads the audio, video & associated data from their respective queues 70, 72 & 74, and generates the display of images on the screen, col. 6, lines 54-58).

‘a modem for establishing a telecommunications link’, Adams discusses a data modem 58, see (Fig. 2; Fig. 3; col. 5, lines 22-30; col. 5, lines 54-67 & col. 6, lines 1-20). However, Adams does not explicitly disclose that the data modem 58 operates to transmit and receive on-line data from a remote site. Nevertheless, Handelman discloses a modem 119, 150 within a

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CATV set-top unit for on-line interaction, Fig. 4; Fig. 5; col. 8, lines 16-65 & col. 9, lines 1-20.

It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Adams to use the modem for sending/receiving on-line data, such as fax or e-mail, at least for the known advantage of conserving bandwidth in the TV system, and utilizing the low-bandwidth channels for transmission of data.

‘the processor being responsive to received viewer commands to cause the modem to transmit data to and receive on-line data from a remote site for on-line interaction via the interactive image and between the viewer and the remote site’, is met by the combination of Adams & Handelman.

As for the specific detail of reception of the user command signals to vary the interactive image, Adams does not discuss the appearance of the interactive image/icon after its selection by the user. However, Volk provides an in-depth discussion of animating an interactive image/icon, (Abstract; col. 10, lines 34-67 thru col. 11, lines 1-25; col. 12, lines 15-40; col. 20, lines 15-39 & col. 29, lines 10-21 & Fig. 8). The animated icons in Volk, also corresponds with the claimed ‘interactive image’, since this data is transmitted to the set-top terminal 48 within program modules 202 and are stored in memory at the instant set-to terminal, col. 25, lines 25-35.

It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the images in Adams, to vary or change their appearance upon selection by

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the user, for the well known improvement of confirming for the user, that the instant icon has indeed been selected, as taught by Volk, (col. 5, lines 12-34 & col. 6, lines 26-37).

Considering claims 3-4, 29-30, 35-36, 71, 81 & 84, the associated data of Adams reads on the claimed 'information data' as program data and the processor 52 executes programs contained within the associated data, see col. 6, lines 1-6; col. 7, lines 55-60 & col. 8, lines 64-67 thru col. 9, lines 1-4.

Regarding claims 5, 15, 31, 38, 72 & 82, the claimed stored 'template data' reads on the object definitions included in the associated data of Adams, see col. 7, lines 40-67 thru col. 8, lines 1-24, which are stored in the associated data queue. These object definitions are used to construct the graphics displayed on the monitor, which reads on the claimed subject matter.

Furthermore, the claimed 'template data' also reads on the program modules 202 of Volk, which include control and focus objects that are transmitted to the set top terminal 48 and used to render graphical images on the viewers screen, col. 10, lines 45-67; col. 17, lines 28-64; col. 30, lines 24-65.

Considering claims 7-8 & 73-74, Adams teaches that the user system may at least use a mouse 22 or keyboard 20, but does not discuss the claimed 'remote control'. Nevertheless, Volk teaches that the input device 54 to a se-top terminal may be a keyboard, mouse, handheld remote control, trackpad, etc., col. 16, lines 49-67 & Fig. 1. It would have been obvious for one of

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ordinary skill in the art at the time the invention was made, to modify Adams with remote control discussed in Volk, at least for the desirable advantage of allowing the user more freedom of movement while using the input device.

Considering claims 10 & 75, the claimed store for storing on-line data received from via the modem is met by the associated data queue 74 of Adams. Also Handelman teaches that on-line data received via the modem 119 or 150 may be stored in memory, see col. 9, lines 1-20.

Considering claims 11-13 & 16, the processor 52 of Adams responds to the received data, executes programs/instructions contained within the on-line data, col. 5, lines 22-25 & col. 6, lines 55-59.

Considering claims 14, 17, 37, 39, 40, 65-68, 76 & 85, the claimed plural interactive screens that are individually displayable, and are displayed in a hierarchical order is met by the disclosure of Volk that teaches that the interactive data may be displayed as frames, which correspond to windows in computer GUI technology, (col. 30, lines 1-24). Each frame is its own container of selectable objects, which reads on individually separable screens. The viewer may navigate from frame to frame by selecting items within a particular frame (parent), which leads to subsequent item(s), within the next frame (child).

Considering claims 18-22 & 41-45, Adams discloses a command that defines the size of a selection region, col. 7, lines 41-67, but does not discuss the interactive image being larger than

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the size of the screen. Nevertheless, Volk teaches that the interactive data may include images that are longer or wider than the screen to which it is displayed, Fig. 8B. In this instance the additional images are viewed by using the well known scrolling technique, col. 37, lines 38-67. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Adams with the well-known technique of displaying images that are larger than the screen, as taught by Volk, so that the display is not limited to the size of the screen.

Considering claims 32-33 & 83, the claimed subject matter is met by the operation of Adams, (col. 8, lines 1-24) and Volk, (col. 25, lines 25-46; col. 34, lines 31-40 & col. 36, lines 20-50).

Considering claims 59-60 & 79, Adams teaches that background and foreground may be controlled from the associated data, col. 7, lines 40-67 thru col. 8, lines 1-24. Also, Volk teaches that background may be live video and that the graphics may be overlaid, which reads on 'changeable', col. 34, lines 31-67. As for the feature of the background and foreground having corresponding subjects, so that they appear to form a continuous single interactive image, Volk discloses that when rendering multiple layers of items, it is desirable that their Z order appear contiguous, see col. 33, lines 63-67. As for the content, by definition, in both Adams (col. 6, lines 61-67) and Volk (col. 11, lines 42-67) the graphical images/icons that are displayed are related to the video data to which they are displayed.



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Considering claim 80, the claimed method steps of interacting with broadcast interactive services using a receiver for receiving digital TV signals corresponds with subject matter mentioned above in the rejection of claim 1, and is similarly treated. Claim 80 recites, 'image data', instead of 'video data', which is recited in claim 1. However, 'image data' is broader than 'video data', and thus the claims are likewise analyzed.

4. Claims 23-27 & 77-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams, Handelman & Volk, further in view of Schutte, (U.S. Pat # 5,319,454).

Considering claims 23-27 & 77-78, Adams does not discuss the use of smart card technology to enable the user to purchase programming. Nevertheless, Schutte provides a disclosure directed to a customer card, which is used to control access to premium programming, using a card reader 44 Abstract; Fig. 1; col. 4, lines 50-67 & col. 5, lines 1-25. It would have been obvious for one ordinary skill in the art at the time the invention was made, to modify Adams to provide a card that is used to control access to premium programming, at least for the desirable benefit of limiting purchasing to the individual that has possession of the smart card, as taught by Schutte, which is a form of parental control of the unit.

As for claim 24, Schutte teaches that the reader is enabled to read magnetic stripes, as are on credit cards, col. 4, lines 54-57. As for the claimed second card reader, Official Notice is taken that at the time the event was made, the use of multiple card readers at a terminal was

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known in the art. It would have been obvious for one ordinary skill in the art to modify Adams & Schutte with additional card readers; at least for the advantage of providing redundancy, so that in the case of one reader not being operable, the subscriber may use the other one.

### *Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A) Ozaki Teaches using a credit card to make purchases at a STB.

B) Suzuki, Muzio Teaches varying a selected image, in order to confirm that the image has been selected.

C) Tweedy, Yoshinobu Teaches use of a modem with a CATV STB, for communication over a telecommunication system.

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**Any response to this action should be mailed to:**

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**or faxed to:**

(703) 872-9306, (for formal communications intended for entry)

**Or:**

(703) 746-6861 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")


*Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal  
Drive, Arlington. VA., Sixth Floor (Receptionist).*

Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to Reuben M. Brown whose telephone number is (703)305-2399.  
The examiner can normally be reached on M-F(8:30-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Grant Christopher can be reached on (703)730-4755. The fax phone numbers for the  
organization where this application or proceeding is assigned is (703) 872-9306 for regular  
communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the receptionist whose telephone number is (703) 305-4700.

Reuben M. Brown

  
**REUBEN M. BROWN**  
**PATENT EXAMINER**